

UPS-96-24-S SuperCAPS

- **24VDC** - Industrial-grade UPS
- Integrated **SuperCAPS** (EDLC) Battery
- Up to 500 000 cycles
- Capacity 5.7 kj
- Corrent detection, Power Fail and Reboot function
- Relay with selectable functions
- Reverse polarity protection at input
- Overcurrent protection & short circuit protection at output
- -20 ~ +65°C



INPUT

Input Voltage:	24 VDC
Input Voltage range:	22.5 ~ 30 VDC
Electric strength max:	35 VDC
Fixed connect threshold	
Undervoltage:	22.5 VDC
Voltage drop IN/OUT:	0.5 VDC max
Current consumption	
Rated current:	4.1 A
Max current:	4.9 A
Current w/o Load:	<100 mA
Current charge:	1.8 A
Power consumption	
Rated power:	98 W
Max power:	117.5 W
Power charge:	43 W
Internal input fuse:	15 A
Switch-on time:	<5 sec

ENERGY STORAGE

Charging method:	CC / CV / CP
Rated voltage:	8.3 V
End of charge voltage:	8.3 V
Charging current:	16 A max
Undervoltage protection:	4.5 V
Battery technology:	EDLC
Rated capacity:	5.73 kj (3.88 kj usefull) 1.59 Wh (1.08 Wh usefull)
Charging time:	~ 2 min
Buffer time:	30 sec

OUTPUT

Output Voltage:	24 VDC
Output Voltage range:	(Input voltage) - 0.5 VDC
Capacitive load:	3000 µF (at start)
Output current:	4 A
Output Power:	96 W
Short-circuit proof:	Yes
No-load proof:	Yes
Overcurrent shutdown	4.2 ~ 4.5 A for max 3s 4.6 ~ 10.8 A for max 100ms > 10.8A for max 5ms

MECHANICAL & ENVIRONMENTAL CONDITIONS

Flammability class:	V0
Weight:	0.6 kg
UPS Connection	
Parallel	NO
Series	NO
Degree of protection:	IP 20
Protection class:	III (without PE)
Mounting type:	DIN-Rail mounting
Housing version:	Aluminum
Dimension:	(W)63x(H)120x(D)100 mm
Operation Temperature:	-20 ~ +60°C
Storage Temperature:	-30 ~ +65°C
Max. Humidity:	≤ 95% (at +25°C, no dew)
Climate Class:	3k3 (EN 60721)
Degree of pollution:	2
Overvoltage Category:	
EN 61010-1	I
EN 61010-2-201	I

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CONNECTION

Connection INPUT/OUTPUT

Method:	Screwable plug connector
Conductor cross-section:	0.129 mm ² ~ 1.31 mm ²
Stripping length:	6 mm ~ 7 mm

Connection RELAY

Status (configurable):	Power Fail Alarm
Switching voltage:	24 VDC / 125 VAC
Current Capacity:	1 A (DC) / 0.5 A (AC)
State (configurable):	NO / NC

Data Interface USB

Connection Method:	USB Type B (F)
Transmission physics:	USB 2.0
Protocol:	VCOM, HID
Electrical Isolation:	NO
Chipset:	NXP
Transmission length:	≤ 3m

Data Interface RS232

Connection Method:	DSUB 9-Pin (F) - DB9
Transmission physics:	RS232 light (TX / RX)
Baud Rate:	38400
Type of cable:	1:1
Electrical Isolation:	NO
Chipset:	NXP
Transmission length:	≤ 10m
Voltage Level:	-6 ~ +6 VDC

INTERFERENCE IMMUNITY ACCORDING TO EN 61000

Electrostatic discharge - EN 61000-4-2

Contact discharge:	4kV
Air discharge:	8kV
Comment:	Criterion B

Electromagnetic HF Field - EN 61000-4-3

Frequency range:	80MHz ~ 1GHz
Test field strength:	10V/m
Frequency range:	1.4GHz ~ 2GHz
Test field strength:	3V/m
Comment:	Criterion A

Fast transients (Burst) - EN 61000-4-4

Test voltage:	2kV
Comment:	Criterion A

Surge voltage load (Surge) - EN 61000-4-5

Test voltage L-N:	± 1kV
Test voltage L-PE, N-PE:	± 2kV
Comment:	Criterion A

Power frequency magnetic field immunity - EN 61000-4-8

Test level:	30 A/m
Comment:	Criterion A

Criterion A Normal operating behavior within the defined limits

Criterion B Temporary impairment of the operating behavior, that is corrected by the device itself

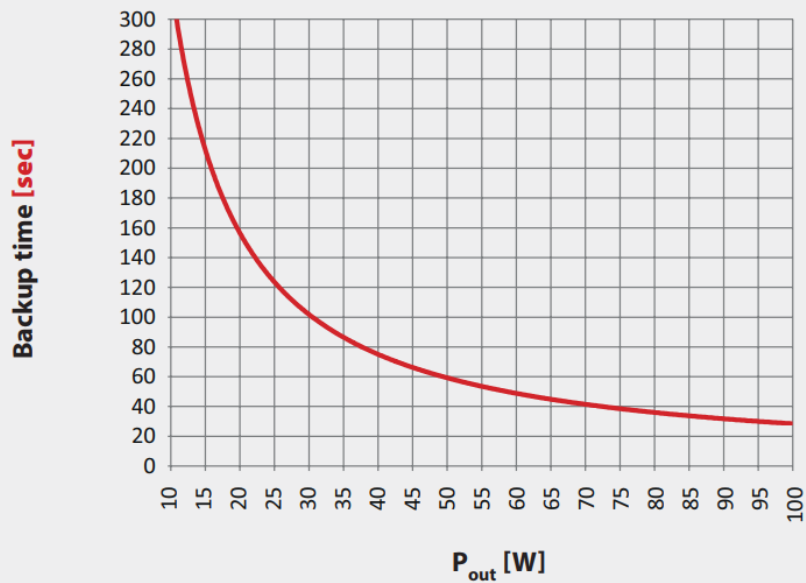
ORDER CODE

Cod. **10004947**

UPS-C-I24-O24-96W-1R-U-S

- 1x USB 2.0 Cable 1.8m
- 2x Phoenix Terminal Connector

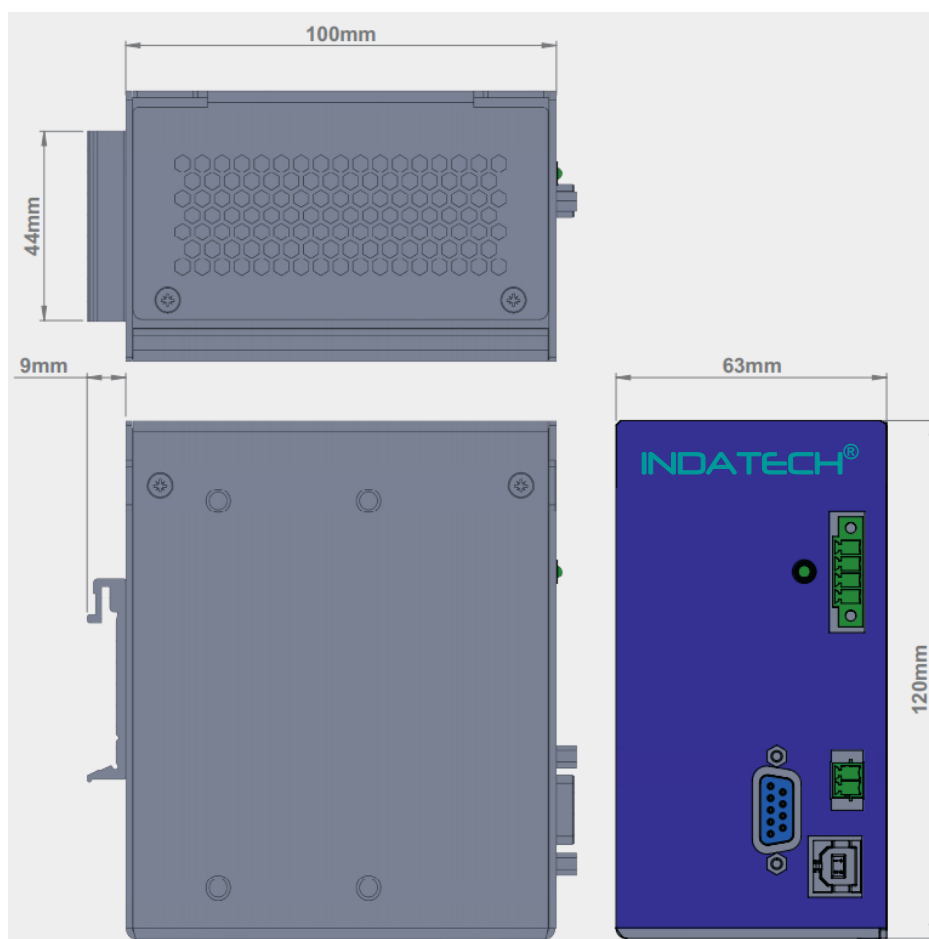
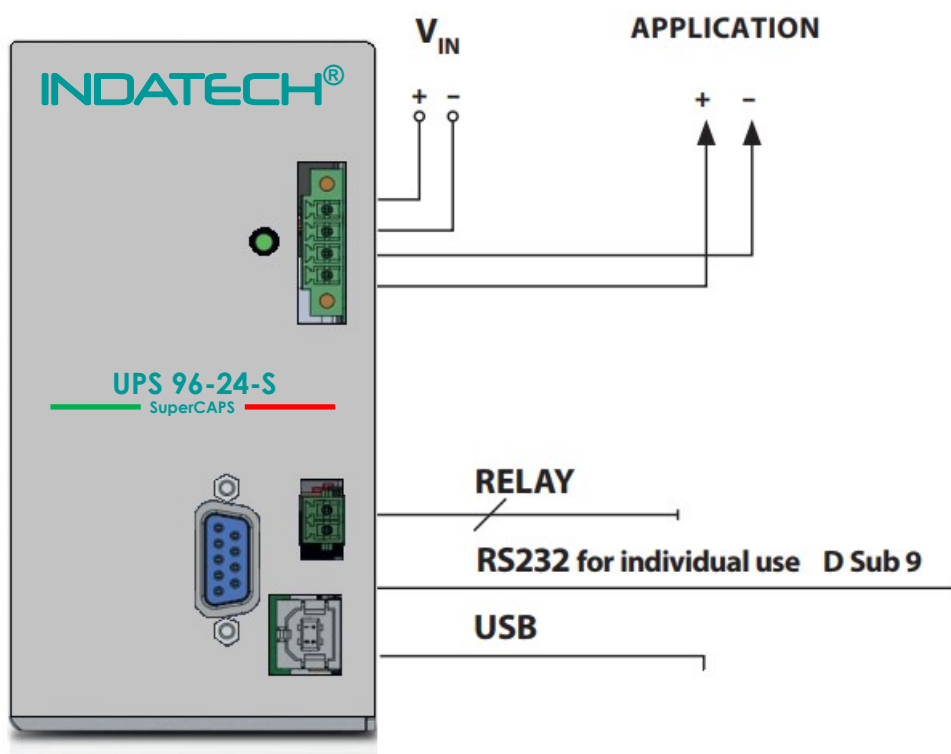
BACKUP TIME OF UPS 24VDC 96W



UPS 24VDC 96W LED STATUS

MAIN STATES		
	Always on	Status: mains voltage >> Mains voltage is present.
	1 Hz flash (1 s on, 1 s off)	Status: Battery mode >> Mains voltage is not present.
INTERNAL STATES		
	1 x flash (LED is off briefly), pause 2 s	Status: Battery start >> Manual start from the battery by pressing the BS button.
	2 x flash (LED is off briefly), pause 2 s	Status: Capacity not reached >> Capacity is required. Output is only activated when the battery is charged to set SOC.
	3 x flash (LED is off briefly), pause 2 s	Status: Shutdown >> UPS has received a shutdown signal and is waiting until the set load sensor value has fallen below.
	4 x flash (LED is off briefly), pause 2 s	Status: Reboot >> Output is deactivated and time until reboot runs (Reboot phase).
BATTERY FAILURES		
	1 x flash (LED is off a long time), pause 2 s	Status: No battery detected
	2 x flash (LED is off a long time), pause 2 s	Status: Battery overvoltage >> Charge voltage at battery is too high, battery is deactivated.
	3 x flash (LED is off a long time), pause 2 s	Status: Battery overcurrent >> Charge current at battery is too high, battery is deactivated.
	4 x flash (LED is off a long time), pause 2 s	Status: Battery temperature failure >> Battery temperature sensor was not detected or battery temperature is too high or low.
UPS FAILURES		
	Quick flashing without pause	Status: UPS failure >> Output current too low, UPS is deactivated. >> Overcurrent at output (charge current too high), output is deactivated >> Short circuit at output, output is deactivated >> Internal failure, UPS is deactivated.

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